

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 6186	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2004/050099	International filing date (<i>day/month/year</i>) 09 February 2004 (09.02.2004)	Priority date (<i>day/month/year</i>) 03 April 2003 (03.04.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant DEGUSSA AG		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 9 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 02 March 2006 (02.03.2006)
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

Translation

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

6186

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2004/050099

International filing date (day/month/year)

09.02.2004

Priority date (day/month/year)

03.04.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

DEGUSSA AG

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/050099

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/050099

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4, 5, 7	YES
	Claims	1-3, 6	NO
Inventive step (IS)	Claims		YES
	Claims	1-7	NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

2. Citations and explanations:

Reference is made in the present communication to the following documents:

D1: WO 02/084013 A
D2: WO 03/013748 A
D3: EP 1 283 077 A
D4: BARTHLOTT W et al.: "Purity of the sacred lotus, or escape from contamination in biological surfaces", Planta, Vol. 202, 1997, pages 1-8
D5: DE 199 55 153 A

Novelty

The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-3, and 6, is not novel within the meaning of PCT Article 33(2).

1. The independent claim 1 relates to a method for preventing mould formation on building parts, where a dispersion of hydrophobic particles in an organic dispersing agent is applied to the surface that is to be protected, whereupon the dispersing agent is removed. The

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

independent claim 6 relates to a mould growth-inhibiting agent for building parts, which consists of the abovementioned dispersion.

Dependent claims 2-5 and 7 specify the particle content of the dispersion (0.1-10% by weight), the material of the particles (for example silicon dioxide), the dispersing agent (for example ethanol; or an alcohol, claim 7), or the type of application (spraying on).

2. First, it must be stated that the process steps which the process comprises, or the components which the composition comprises, are critical for assessing the novelty of a process or a composition. The intention, with which the process is carried out, or the intended use of the composition, is irrelevant, unless the intended use of the process or of the composition implies process steps or components which deviate from those of the prior art.

Cited prior art document D1 (see page 1, line 3-line 19; page 3, line 5-page 4, line 4; page 6, line 6-line 12; page 7, line 7-page 9; claims 1, 2) discloses the treatment of polymer fibres with a dispersion of hydrophobic particles such as, for example, hydrophobicized silicon dioxides, in a solvent, in order to make these fibres self-cleaning and water-repellent. The application range comprises, inter alia, wallpaper, which is also mentioned in the present application (see page 9, lines 1-7) as surface to be treated. D1 is therefore novelty-destroying to claims 1-3 and 6.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Inventive step

The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-7 does not involve inventive step within the meaning of PCT Article 33(3).

1. Since the subject matter of claims 1-3 and 6 lacks novelty, it cannot involve an inventive step.
2. The subject matter of the claims can be considered a solution of a general problem which can be defined as provision of methods for suppressing mould formation on the surface of building parts.

The solution, that is application of a coating with what is known as a Lotus-Effekt®, must be considered obvious for the following reasons:

As is known from the prior art (D2-D4), the above-mentioned effect leads to water running off surfaces which display this effect, entraining contaminants. Naturally, these contaminants also include fungi or fungal spores. This is obviously also assumed in D2. The document describes (see page 2, line 6-line 22; page 3-page 4; page 6, line 9-line 23; page 9, line 12-line 22; page 14, line 5-page 15, line 4, and example 1) the treatment of surfaces of building parts with a coating which, in addition to a surface with Lotus-Effekt®, contains antimicrobial substances. The fact that this measure suppresses the growth of fungi after the self-cleaning surface has been damaged is emphasized. This implies that the self-cleaning surface already has a certain fungal mould growth-inhibiting effect.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

While D3, as opposed to D2 (see D3, paragraph [0008]; paragraph [0011]-paragraph [0014]; paragraph [0035]; paragraph [0037]; paragraph [0050]-paragraph [0051], and example 1) provides providing the surface of a coating with antimicrobially active particles in addition to the particles which generate the Lotus-Effekt® this does not mean that the antimicrobially active particles are considered as being completely ineffective with regard to suppressing the growth of mould fungi.

Finally, it is generally assumed that one of the driving forces which give rise to the natural model of this phenomenon is the protection of the plant from pathogens, for example by suppressing the adhesion of fungal spores and their germination (see D4, page 6, right-hand-side column, paragraph 3-page 7, left-hand-side column, paragraph 1).

Applying such a self-cleaning film in the form of an ethanolic dispersion of the hydrophobic particles by spraying on is an obvious possibility. The subject matter of the claims can therefore even in as far as it is novel not be considered as involving an inventive step.

Industrial applicability

The subject matter of claims 1-7 is considered as having industrial applicability (PCT Articles 33(1) and (4)).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. VI

Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No.
Patent No.

Publication date
(day/month/year)

Filing date
(day/month/year)

Priority date (valid claim)
(day/month/year)

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)

Date of written disclosure
referring to non-written disclosure
(day/month/year)

See form 210